Minutes
Parlier Local Advisory Group Meeting
November 8, 2007

Local Advisory Group (LAG) members present:
Teresa DeAnda, Rogelio Fernandez, Karen Francone, Rick Milton, Tom Vitali, Vernon Peterson, Harold McClarty

Technical Advisory Group (TAG) members present:
Lynn Baker (Air Resources Board)

Facilitator: Lydia Martinez

Department of Pesticide Regulation (DPR) staff: Veda Federighi, Randy Segawa, Pam Wofford, Rosemary Neal, Pat Matteson, and Clarice Ando.

Introductions and announcements: After the introduction of DPR staffers and LAG members, Veda Federighi discussed a letter DPR Director Mary-Ann Warmerdam sent to LAG members and interested parties, updating them on the project. The letter (available on DPR's Web site at http://www.cdpr.ca.gov/docs/envjust/pilot_proj/parlier_ltr_oct07.pdf) outlined project accomplishments. For example, as a direct consequence of the findings in Parlier, diazinon was moved up to first on the list for upcoming risk assessments, and the ongoing risk assessment for chlorpyrifos was put on a fast track. The letter also said that DPR staff was continuing to analyze the data; however, the final project report would be delayed until late 2008 or early 2009. The delay was because the air monitoring staff has been assigned the priority task of implementing new regulations to reduce emissions from fumigant pesticides. Delaying the report will not affect what has been achieved in the Parlier project, Veda explained. The project goal is to evaluate ambient air exposure to pesticides to better understand and identify opportunities to reduce environmental health risk, particularly to children. The data do not show significant health risks that warrant immediate action. As promised, however, DPR is taking a closer look at findings that were above or close to our health-protective screening levels.

Veda explained that DPR is not yet able to evaluate the cumulative impact of pesticidal and nonpesticidal air pollutants on community health because there are no accepted scientific guidelines to do this. OHHEHA, however, is working with the University of California on guidelines. Teresa asked about the status of Tim Tyner's study on correlating children's illnesses with pesticide air concentrations in Parlier. No one was sure of the current status. Randy received an email from Tim several months ago saying that the study was still in progress.

Air Resources Board (ARB) and San Joaquin Valley Air Pollution Control District (SJVAPCD) Monitoring Results: Pam Wofford presented ARB's highest one-day air concentration data on 1,3-D, acrolein, arsenic, carbon disulfide, copper, formaldehyde, methyl bromide, sulfur, and xylene. Air samples were collected once every six days. Acrolein (4,485 ng/m^3) was the only compound detected which exceeded its acute screening level (190 ng/m^3).

Copper, sulfur, carbon disulfide and formaldehyde were detected in all samples analyzed. With the exception of 1,3-D, the presence of all the remaining compounds analyzed by ARB may have had an origin other than agricultural pesticide use (i.e. engine exhaust). Pam also compared Parlier and Fresno's highest 1-day VOC concentrations and noted that results were similar except for 1,3-D, which was approximately 4 times higher in Parlier (23,082 ng/m^3) than it was in Fresno (5,859 ng/m^3). Highest 1-day metal air concentrations were also discussed. None of the detected metal levels were above their acute screening level, however, only a few acute screening levels have been established. Hexavalent chromium concentrations were also charted. Values were from a composite sample averaged over a 3-month period. Detections were at or slightly above the detection limit (0.06 ng/m^3). Pam also presented SJVPCD results, which encompassed ozone, nitrogen dioxide, and PM2 data. From May through October 2006, the continuous 8-hr average ozone concentrations exceeded the state's air quality standard of approximately 140,000 ng/m^3. Nitrogen dioxide 1-hr concentrations rarely exceeded 100,000 ng/m^3 and were well below the state's air quality standard of approximately 450,000 ng/m^3. The continuous 24-hr average PM2.5 concentration was exceeded quite often due to the fact that the state and federal standards were recently lowered.

Local Pesticide Use Data: Rosemary Neal, DPR environmental scientist, combined her geographic information systems knowledge with local pesticide use for the Parlier Project. Graphically, Rosemary displayed the 150-square mile area that extended 5miles outward in all directions from the city of Parlier. This area included Sanger to the north, Reedley to the east, Kingsburg to the south and Del Rey and Selma areas to the west. Rosemary can visually display pesticide use on a 1-square mile section basis or even fine-tune it, so that use is displayed for a particular farmer's field. Data can also be viewed by the number of applications made during a particular time interval. The example shown was a small circle placed in a 1-square mile use section associated with 1-4 pesticide applications versus a large circle placed in a section which had 5 or more pesticide applications. Rosemary also presented a graph showing the number of pesticide applications per month verses the number of pesticide detections reported in the study. Many variables including wind direction, distance from receptor to application area, temperature, and precipitation may influence whether a pesticide is transported to a region and detected. She gave diazinon as an example, graphically displaying the above factors for this compound in July – when detections for this chemical were the highest. She will apply these techniques shown at the meeting to all chemicals detected in Parlier. Rosemary will also look at computer-based models to investigate the relationship between environmental parameters to pesticide detections.

Outreach sessions: To introduce Parlier area residents to the project, DPR sponsored a community fair in January 2006. The LAG had requested that DPR do a community forum at the conclusion of the project, to go over the findings. However, Veda explained that large meetings to disseminate information did not typically have as much impact as smaller, more informal meetings taking place at such locations as school site councils, service clubs, local churches, health center, and youth centers. She proposed that DPR work with Lydia Martinez to organize a

series of outreach sessions in Parlier where DPR scientific staff would go over project findings, accompanied by Adrian Perez, DPR's Environmental Justice Associate, who is bilingual.

The LAG had no objection to this plan. Teresa requested that a health expert from Cal/EPA's Office of Environmental Health Hazard Assessment also attend the sessions. Veda responded that she could not commit attendance of staff from another department, but that she would make the request. Harold asked that the briefing include information on agricultural practices. In response to these and other LAG comments, Veda said that before the outreach sessions begin, she would send an outline of the draft presentation to LAG members for their review and comment. Because some LAG members said they would also like to attend the sessions, she said she would send out a schedule once the meeting dates, times and places were finalized. Lydia Martinez mentioned that if anyone has any additional locations where presentations would be helpful, to please contact her.

Veda also explained that when the final report is released, DPR would ask City Manager Lou Martinez if he could arrange for DPR to present the information to the Parlier City Council. The LAG will be invited to attend as well.

Pest Management Assessment: Pat Matteson, DPR environmental scientist, gave a brief overview of crop pests farmers have to deal with in the Parlier study area, including how soil fumigants and organophosphate insecticides (OPs) are used, and some of the alternatives that are available. She described stone fruit, grapes for raisins, fresh fruit or wine, almonds, and citrus (oranges/tangerines) as the four major groups of agricultural crops grown in the Parlier region, though relatively small acreages are planted to almonds and citrus. 1,3-D is the major soil fumigant used in the Parlier area, often to avoid "replant disorder." That term describes a syndrome of stunting and lack of vigor in replanted orchard trees or vineyards.

Pat also explained that the four most common OPs applied in the study area are phosmet, diazinon, chlorpyrifos, and methidathion, which are toxic to a broad spectrum of insects, including beneficial species. Alternatives are available for most current uses of OPs in the project area; more and better alternatives to soil fumigation are a priority for research. Soil fumigant and organophosphate use can be reduced by practicing integrated pest management (IPM).

IPM systems reduce reliance on pesticides by emphasizing practices such as biological control, habitat manipulation, cultural practices, and resistant crop varieties to prevent pest problems. Pesticide is used when monitoring shows that an application is needed. Preference is given to reduced risk pesticides, which are compounds that in general have relatively low toxicity to humans and nontarget species, low potential for water pollution, low use rates, and low pest resistance potential, and are compatible with IPM practices. She gave some examples of soil fumigant IPM alternatives, such as fallow/crop rotation, soil solarization, soil amendments, and

good nutrition/irrigation management. Also included were some examples of OP alternatives such as the use of mating disruptive pheromones for a key stone fruit pest and reduced risk pesticides for control of mealybugs in grapes.

Pat also explained that innovative application technologies can reduce pesticide risk. Examples include target-sensing sprayers and remote sensing-guided equipment that enables growers to detect and treat only the problem pest and area. In partnership with UC, the California Tree Fruit Agreement, and the USDA-Natural Resources Conservation Service, DPR is promoting target sensing sprayers and IPM practices among Parlier area stone fruit growers. DPR is also funding UC research to identify IPM-compatible reduced-risk pesticides that work well against grape vine mealybugs.

Pat concluded her presentation by describing research and outreach priorities, new resources, and potential new partnerships for broader adoption of reduced risk pest management practices in the project area.

Future LAG Meetings: Veda asked the LAG if they thought additional LAG meetings were needed. She said that from DPR's perspective, they were not, but that the Department would certainly consider meetings to discuss topics should the LAG request it. She said that the project work now consists of scientific analysis, and there is little part that an advisory committee can play in this.

There was discussion among LAG members and DPR staff about the benefits of the project and the LAG meetings—how they benefited Department staff and LAG members. There was no disagreement from the LAG that this would be the last meeting of the advisory group. Teresa said she was disappointed that more community members did not attend meetings. Veda said this is not surprising, as most people have other issues they feel are more important. Lydia talked about the difficulty in getting parents involved with schools.

Veda and Lydia thanked everyone who took part in the LAG for making the time to attend the meetings.

No further LAG meetings are scheduled.